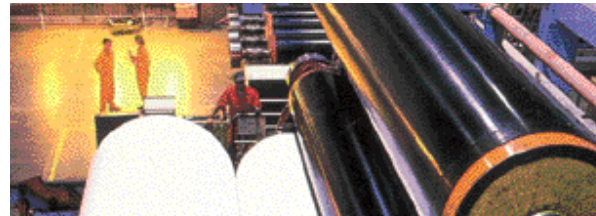


ABB

ACS 600

DTC

2.2~3000kW



Brain Power.™

ABB



AC DTC
ACS 600 ACS 600

- 가 (DTC) ACS 600
- DTC 가
- 200%
- 5ms
- 0.1 0.5%
- (0.01%)

- ACS 600
- 2.2 3000kW
 - 220V, 380 690V
 - IP00, IP20, IP22, IP42, IP54

ACS600 Series

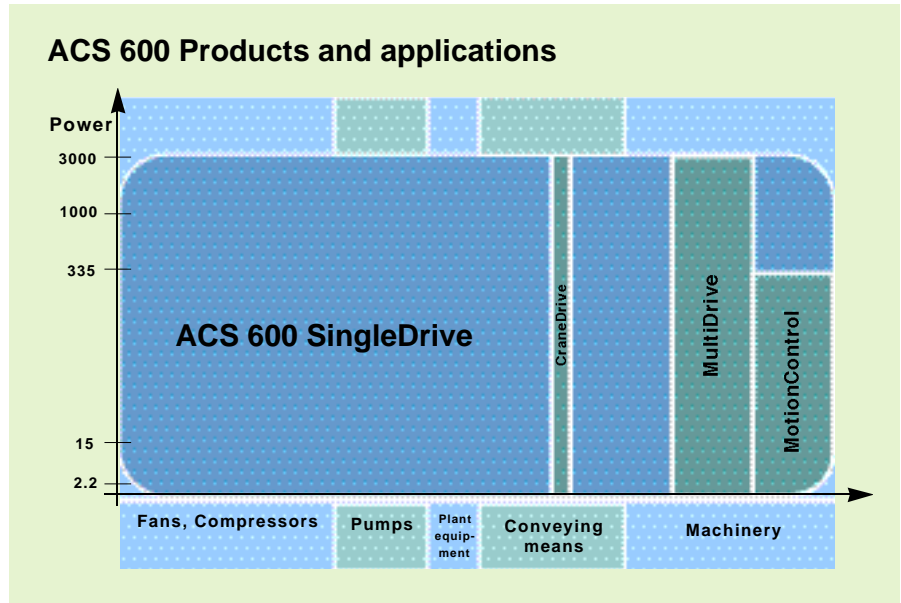
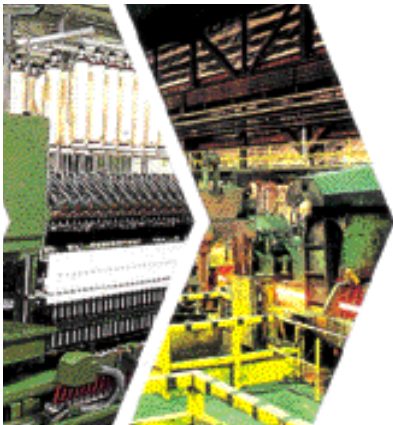
- ACS600 :
- ACS600 Step-up Drive : (Sine-filter)
- ACP600 : (Servo)
- ACS627 : 12 pulse (Diode)
- ACS617 : (4) (IGBT)
- ACS677 : (4) (SCR)
- ACA600 : (, ,)
- ACC600 :
- ACS600 Marine Drive :
- ACS600 Solution : OEM ()
: PID Control, Master/follow, PFC Control,
Spinning Control, Traverse Control, Winder/Unwinder
Control, In-line(Denser/Tension)Control...etc

ACS 600 (Macro)
가 / /
DIN

ACS 600 Fieldbus
Profibus, Modbus, ABB CS 31, ABB AF100,
ModbusPlus, DeviceNet, InterBus-S, LonWorks, CANopen, Siemens
Building Automation Landis Division FLN, Johnson Controls N2
가

가 -EMC
ABB EMC
ACS 600 EMC(Electro Magnetic
Compatibility)
ACS 600 EMC CE

...



ACS 600

- Fans, Compressors
- Pumps
- Plant equipment
- Conveying means
- Machinery
- Decantar
- Press, Compressor



ACS 600

```
0 L 1242.0 RPM I
SPEED 1242.0 RPM
CURRENT 76.00 A
TORQUE 86.00 %
```

ACS 600 277 3

- _____
- _____
- _____
- _____
- _____
- _____
- _____ (mA, V, %)

```
0 L 1242.0 RPM I
99 START-UP DATA
2 APPLICATION MACRO
FACTORY
```

ACS 600

- FACTORY SETTING()
- HAND/AUTO CONTROL(/)
- PID CONTROL()
- TORQUE CONTROL()
- SEQUENTIAL CONTROL()
- USER MACRO 1 & 2()
- MASTR/FOLLOWER()
- PFC()
- Traverse()
- Winder(,)
- Decanter()
- Spinning()
- Crane()
- Position Control(: ACP)
- Inline (,)
- Extruder ()

20 *4 LCD
가 가

LOCAL/REMOTE , START/STOP, RESET,
REFERENCE LOCAL 가

```
0 L 1242.0 RPM I
1 LAST FAULT
OPERATOR TIME
TIME: 11:21 H 1 MIN
```

```
0 L 1242.0 RPM I
UPLOAD <=> <=>
DOWNLOAD => =>
CONTRAST 4
```

```
0 L 1242.0 RPM I
11 REFERENCE SELECT
3 EXT REF 1 SELECT
R11
```



...

75kW

가
()

Power
Plate IGBT

(DSP)

PC

3 가
(1, 2)

2 가
()

6 가



IP 00, IP 21(NEMA 1)
IP 54(NEMA 12)

AC

가

3 가
("C")

CE, UL CSA

Fieldbus

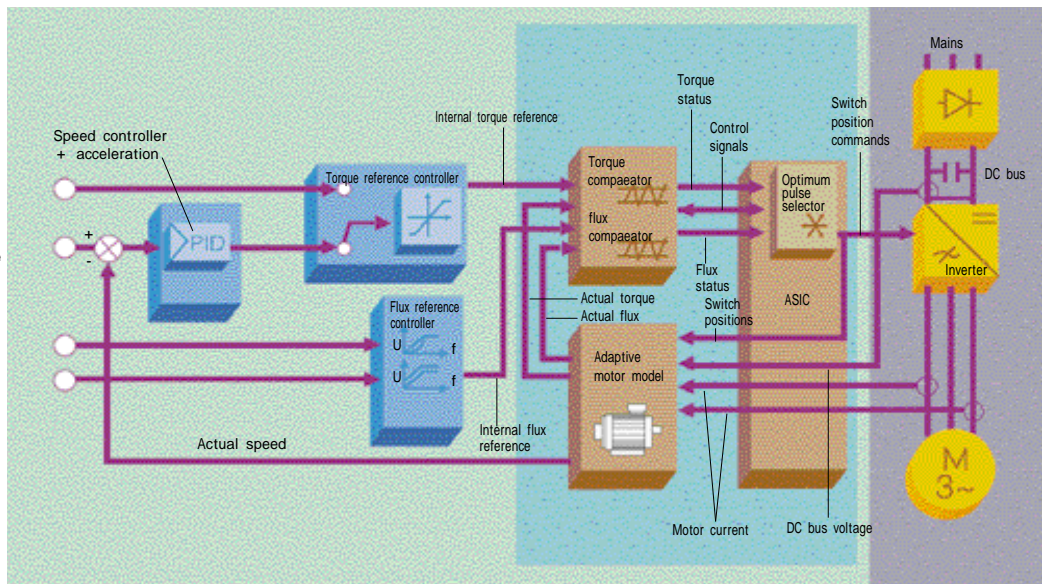
RS 485

DTC

ACS 600

ACS 600

(DTC-Direct Toque Control)
가



ABB

DTC

AC

가

DTC
AC
DTC

(DSP)

1 40,000

IGBT

가

ACS

600

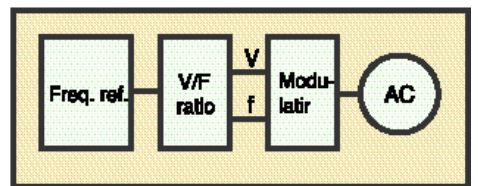
가

DTC
PWM

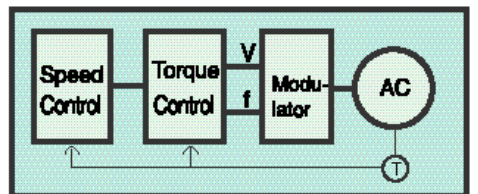
가

DTC	
•	200%
•	
•	5ms
•	0.1 0.5%
(0.01%)

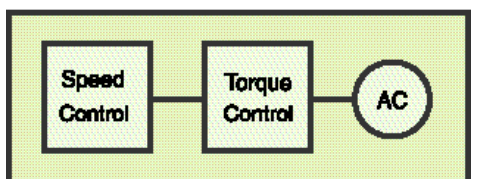
1970 :



1980 :

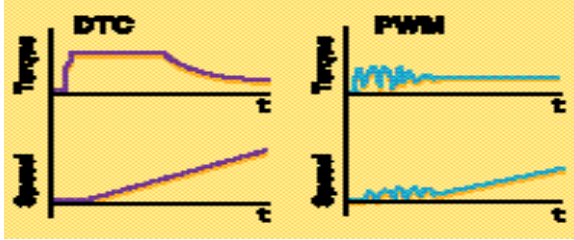


1990 : (DTC)



DTC

ACS 600



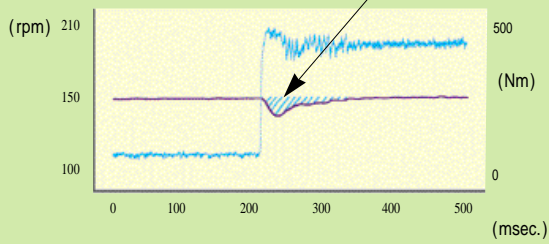
ACS 600

. PWM

가

, ACS 600 DTC

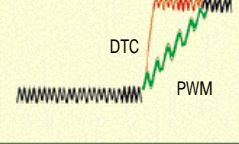
	PWM encoder	PWM Vector encoder	DC Drive encoder	DTC encoder	DTC encoder
Static speed error	± 1 to 3%	± 0.01%	± 0.01%	± 0.1 to 0.5%	± 0.01%
Dynamic speed error	3% sec.	0.3% sec.	0.3% sec.	0.4% sec.	0.1% sec.



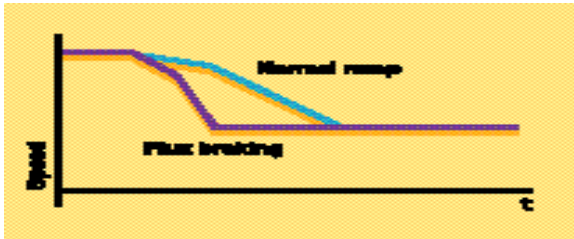
• Torque

DTC	<5msec.
Flux vector	10 to 20 msec.
Open loop PWM	>100 msec.

Torque:



- Torque Encoder가 Trip



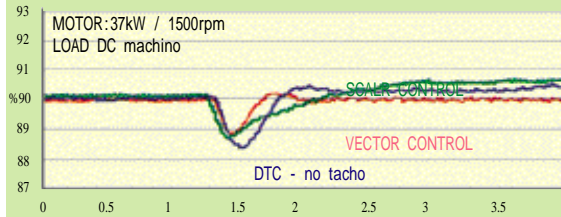
(Automatic Start)

ACS 600

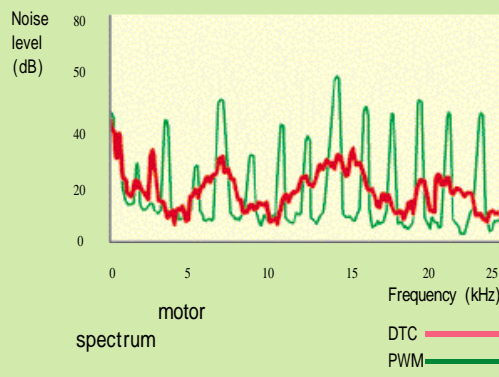
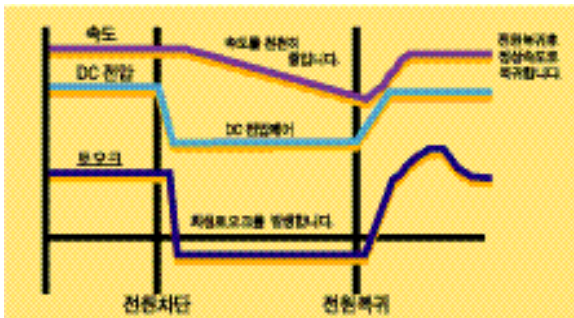
AC

. DTC

, DTC



ACS600



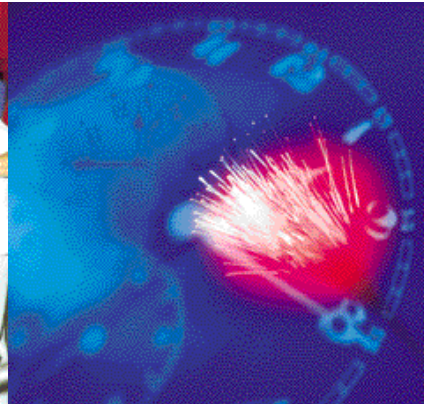
ACS 600



ACS 600 I.D Run ACS 600 - PID 가
 Run) I.D Run(Identification ACS 600 ,
 ACS 600 PID 가 ,

ACS 600 가

(FCB)



(Drives Window)

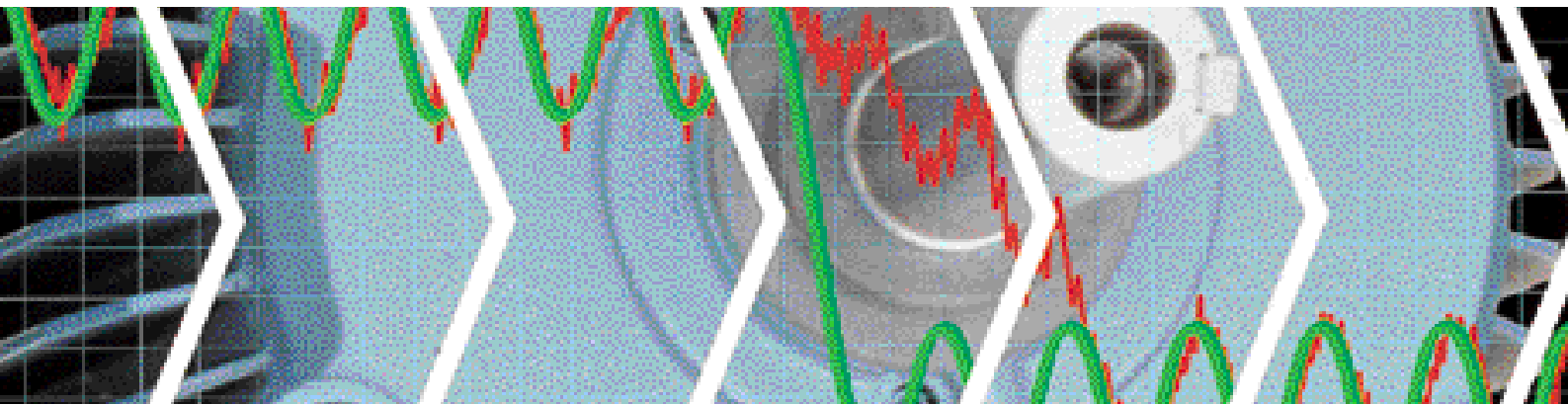
PC ACS 600 가 가 ACS 600
 , Upload, Download , ACS 600 IGBT Thyristor
 (,) "1"
 가

ACS 600 /
DIN
ACS 600

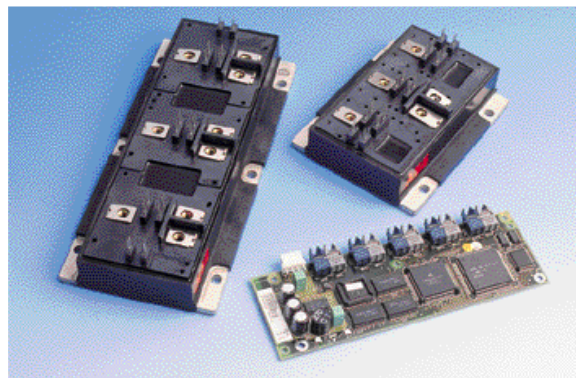
가

ACS 600
Profibus, Modbus, ABB CS 31, ABB AF100, ModbusPlus, DeviceNet,
InterBus-S, LonWorks, CANopen, Siemens Building Automation Landis
Division FLN, Johnson Controls N2

가



ACS 600
Power plate IGBT



ACS 600

ACS 600 Type	Normal use			Heavy-duty use			Pump and Fan use		Frame Type	
	I _N A	I _{Nmax} A	P _N kW	I _{hd} A	I _{hdmax} A	P _{hd} kW	I _{Nsq} A	P _{Nsq} kW	UNIT	PANEL
3 220V, 230V										
ACS 601/606-0003-2	7.8	8.6	1.1	5	7.5	0.8				
ACS 601/606-0005-2	11	12.1	1.5	7.8	11.7	1.1			R2	
ACS 601/606-0006-2	15	18.5	2.2	11	17	1.5				
ACS 601/606-0009-2	18	19.8	3.7	15	23	2.2				
ACS 601/606-0011-2	25	28	5.5	18	27	3.7			R3	
ACS 601/606-0016-2	32	35	7.5	25	38	5.5				
ACS 601/606-0020-2	48	53	11	32	48	7.5			R4	
ACS 601/606-0025-2	60	66	15	48	72	11				
ACS 601/606-0030-2	75	83	18.5	60	90	15				
ACS 601/606-0040-2	88	97	22	75	113	18.5			R5	
ACS 601/606-0050-2	114	125	30	88	132	22				
ACS 601/606-0060-2	143	157	37	114	171	30				
ACS 601/606-0070-2	178	187	45	143	215	37			R6	
ACS 601/606-0080-2	211	232	55	170	255	45				
ACS 601/606-0100-2	248	300	75	192	317	55			R7	
ACS 604/606-0120-2	300	348	90	240	390	75				
ACS 604/606-0140-2	365	435	110	300	474	90			R8	
ACS 604/606-0170-2	460	528	150	365	593	110				R9
3 380V, 400V, 415V										
ACS 601/606-0005-3	7.6	8.4	3	6.2	9.3	2.2	7.6	3		
ACS 601/606-0006-3	11	12	4	7.6	11	3	11	4	R2	RP1
ACS 601/606-0009-3	15	17	5.5	11	17	4	15	5.5		
ACS 601/606-0011-3	18	20	7.5	15	23	5.5	18	7.5	R3	
ACS 601/606-0016-3	24	26	11	18	27	7.5	24	11		
ACS 601/606-0020-3	32	35	15	24	36	11	41	18.5	R4	
ACS 601/606-0025-3	41	45	18.5	32	48	15	47	22		
ACS 601/606-0030-3	47	52	22	41	62	18.5	62	30		
ACS 601/606-0040-3	62	68	30	47	71	22	76	37	R5	RP2
ACS 601/606-0050-3	76	84	37	62	93	30	89	45		
ACS 601/606-0060-3	89	98	45	76	114	37	112	55	R6	
ACS 601/606-0070-3	112	123	55	89	134	45	124	75(60)		
ACS 601/606-0100-3	147	162	75	112	168	55	178	90	R7	RP3
ACS 601/606-0120-3	178	196	90	147	221	75	200	110(100)		
ACS 604/606-0140-3	216	238	110	178	267	90	260	132		
ACS 604/606-0170-3	260	286	132	216	324	110	300	160	R8	RP4
ACS 604/606-0210-3	316	348	160	260	390	132	375	200		
ACS 604/606-0260-3	395	435	200	316	474	160	480	250	R9	
ACS 604/606-0320-3	480	528	250	395	593	200	510	315(265)		
ACS 604/606-0400-3	600	661	315	494	741	250	712	315	2 × R8	
ACS 604/606-0490-3	751	827	400	600	901	315	912	400	2 × R9	RP5
ACS 604/606-0610-3	912	1003	500	751	1127	400	989	500		
ACS 607-0760-3	1094	-	630	751	1313	500	1094	630	R11i	1), 3)
ACS 607-0930-3	1336	-	710	901	1621	630	1336	710	R12i	
ACS 607-1120-3	1624	-	900	1126	1970	800	1624	900		
ACS 607-1440-3	2079	-	1120	1501	2495	1000	2079	1120	2 × R11i	
ACS 607-1770-3	2558	-	1400	1801	3070	1250	2558	1400		
ACS 607-2140-3	3085	-	1750	2252	3702	1400	3085	1750	2 × R12i	
ACS 607-2340-3	3374	-	1900	2402	4049	1750	3374	1900		
ACS 607-2820-3	4070	-	2300	3002	4884	1900	4070	2300	4 × R11i	

Normal use
(1 / 10) 110%
(2 / 15) 150%

Heavy-duty use
(1 / 10) 150%
(2 / 15) 200%

Pump and Fan Use
Squared

I_N, I_{Nsq}, I_{Nsq} ACS 600
P_N, P_{Nsq}, P_{Nsq}

I_{hd}, I_{hd} ACS 600
(IEC 34)

ACS 60X-XXXX-3 380V, 400V, 415V
ACS 600

ACS 60X-XXXX-5 440V, ACS 60X-XXXX-6 660V
I_N, I_{Nsq}, I_{Nsq}, I_{Nsq}

• : 1000m 7/ 40 ACS 600

- 1)
- 2) ACS601 Wall Mounted type IP22
ACS604 self stand type IP00
ACS606 cubicle type without Bypass Circuit IP20 ()
ACS607 cubicle type with Bypass Circuit IP20 (option)
- 3) ACS607 ABB MNS cabinet (without By pass circuit) IP21

ACS 600 Type	Normal use			Heavy-duty use			Pump and Fan use		Frame Type	
	I _N A	I _{Nmax} A	P _N kW	I _{hd} A	I _{hdmax} A	P _{hd} kW	I _{Nsq} A	P _{Nsq} kW	UNIT	PANEL
3 380V, 400V, 415V, 440V, 460V, 500V										
ACS 601/606-0006-5	7.6	8.4	3.7	6.2	9.3	3	7.6	3.7	R2	RP1
ACS 601/606-0009-5	11	12	5.5	7.6	11	3.7	11	5.5		
ACS 601/606-0011-5	15	17	7.5	11	17	5.5	15	7.5		
ACS 601/606-0016-5	18	20	9	15	23	7.5	18	9	R3	
ACS 601/606-0020-5	24	26	12.5	18	27	9	24	12.5		
ACS 601/606-0025-5	31	34	15	24	36	11	41	22	R4	
ACS 601/606-0030-5	41	45	22	31	47	15	47	25		
ACS 601/606-0040-5	47	52	25	41	62	22	58	30	R5	RP2
ACS 601/606-0050-5	58	64	30	47	71	25	65	37		
ACS 601/606-0060-5	65	72	37	58	87	30	84	51		
ACS 601/606-0070-5	84	92	45	65	98	37	112	59	R6	
ACS 601/606-0100-5	112	123	60	84	126	45	124	75		
ACS 601/606-0120-5	135	149	80	112	168	60	164	100	R7	RP3
ACS 601/606-0140-5	164	180	100	135	203	80	193	110		
ACS 604/606-0170-5	200	220	110	164	246	100	240	147	R8	RP4
ACS 604/606-0210-5	240	264	147	200	300	110	285	160		
ACS 604/606-0260-5	300	330	185	240	360	147	345	200		
ACS 604/606-0320-5	365	402	220	300	450	185	460	257	R9	
ACS 604/606-0400-5	460	506	257	365	548	220	490	295		
ACS 604/606-0490-5	570	627	355	456	684	257	656	400	2 × R8	RP5
ACS 604/606-0610-5	694	764	450	570	855	355	874	560		
ACS 604/606-0760-5	874	961	560	694	1041	450	990	600	2 × R9	
ACS 607-0930-5	1073	-	630	694	1288	500	1073	710	R11i	1), 3)
ACS 607-1090-5	1263	-	710	855	1533	630	1263	800(785)	R12i	
ACS 607-1380-5	1593	-	900	1040	1932	710	1593	900		
ACS 607-1760-5	2039	-	1120	1387	2447	1000	2039	1120	2 × R11i	
ACS 607-2160-5	2501	-	1400	1710	3001	1250	2501	1400		
ACS 607-2620-5	3026	-	1800	2081	3681	1500	3026	1800	2 × R12i	
ACS 627-2850-5	3300	-	2200	2280	3960	1600	3300	2200		
ACS 627-3450-5	3992	-	2400	2774	4790	2000	3992	2400	4 × R11i	
3 525V, 550V, 575V, 600V, 660V or 690V										
ACS 601/606-0009-6	7.6	11	5.5	6.2	9	4	Normal use		R3	
ACS 601/606-0011-6	10	11	7.5	7.5	11	5.5				
ACS 601/606-0016-6	14	15	11	10	15	7.5				
ACS 601/606-0020-6	20	22	15	14	21	11			R4	
ACS 601/606-0025-6	25	28	18.5	20	30	15				
ACS 601/606-0030-6	28	31	22	25	38	18.5			R5	
ACS 601/606-0040-6	36	40	30	28	42	22				
ACS 601/606-0050-6	44	48	37	36	54	30			R6	
ACS 601/606-0060-6	52	57	45	44	66	37				
ACS 601/606-0070-6	65	72	55	52	78	45			R7	
ACS 601/606-0100-6	88	97	75	65	98	55				
ACS 601/606-0120-6	105	116	90	88	132	75			R8	
ACS 604/606-0140-6	127	140	110	105	158	90				
ACS 604/606-0170-6	150	165	132	127	191	110				
ACS 604/606-0210-6	179	197	160	150	225	132			R9	
ACS 604/606-0260-6	225	248	200	179	269	160				
ACS 604/606-0320-6	265	292	250	225	338	200			2 × R8	
ACS 604/606-0400-6	351	386	315	265	398	250				
ACS 604/606-0490-6	428	470	400	340	511	315			2 × R9	
ACS 604/606-0610-6	504	555	500	428	642	400				
ACS 604/606-0760-6	667	734	630	504	756	500			R11i	3)
ACS 607-0900-6	755	-	710	504	906	630				
ACS 607-1040-6	874	-	800	641	1049	710			R12i	
ACS 607-1380-6	1156	-	1120	755	1387	900				
ACS 607-1710-6	1435	-	1400	1007	1722	1120			2 × R11i	
ACS 607-2120-6	1777	-	1800	1283	2132	1400			2 × R12i	
ACS 607-2540-6	2129	-	2000	1511	2555	1600				
ACS 607-2800-6	2344	-	2300	1710	2813	1800			4 × R11i	
ACS 607-3350-6	2809	-	2800	2014	3371	2200				

380V, 400V, 415V CLASS

ACS 600		P _{BRmax} [kW]	R[ohm]	E _R [kJ]	P _{Rcont} [kW]	No. of Elements	
400 V a.c. Units							
-0009-3	NBRA-653	8.3	SACE08RE44	44.0	210.0	1	2
-0016-3	NBRA-653	14.4	SACE15RE22	22.0	420.0	2	4
-0025-3	NBRA-654 *	26.9	SACE15RE13	13.0	435.0	2	4
-0050-3	NBRA-655 *	52.8	SAFUR90F575	8.0	1800	4.5	9
-0060-3	NBRA-656 *	65.6	SAFUR80F500	6.0	2400	6	12
-0070-3	NBRA-656 *	79.5	SAFUR125F500	4.0	3600	9	18
-0100-3	NBRA-657 *	94.2	SAFUR125F500	4.0	3600	9	18
-0120-3	NBRA-657 *	128.3	SAFUR200F500	2.7	5400	13.5	27
-0140-3	NBRA-658	154.5	SAFUR200F500	2.7	5400	13.5	27
-0170-3	NBRA-658	190.7	2 x SAFUR125F500	2.0	7200	18.0	2 x 18
-0210-3	NBRA-658	229.5	2 x SAFUR210F575	1.70	8400	21.0	2 x 21
-0260-3	NBRA-659	282.3	2 x SAFUR200F500	1.35	10800	27.0	2 x 27
-0320-3	NBRA-659	352.8	2 x SAFUR180F460	1.20	12000	30	2 x 30
-0400-3	2 x NBRA-658	436.1	2 x (2 x SAFUR210F575)	2 x 1.70	2 x 8400	2 x 21.0	2 x (2 x 21)
-0490-3	2 x NBRA-659	536.3	2 x (2 x SAFUR200F500)	2 x 1.35	2 x 10800	2 x 27.0	2 x (2 x 27)
-0610-3	2 x NBRA-659	670.3	2 x (2 x SAFUR180F460)	2 x 1.20	2 x 12000	2 x 30	2 x (2 x 30)
-0930-3	3 x NBRA-659	1060	3 x (2 x SAFUR180F460)	3 x 1.20	3 x 12000	3 x 30	3 x (2 x 30)
-1120-3	4 x NBRA-659	1411	4 x (2 x SAFUR180F460)	4 x 1.20	4 x 12000	4 x 30	4 x (2 x 30)
-1770-3	5 x NBRA-659	1764	5 x (2 x SAFUR180F460)	5 x 1.20	5 x 12000	5 x 30	5 x (2 x 30)
-2140-3	6 x NBRA-659	2117	6 x (2 x SAFUR180F460)	6 x 1.20	6 x 12000	6 x 30	6 x (2 x 30)
500 V a.c. Units							
-0011-5	NBRA-653	10.4	SACE08RE44	44.0	210.0	1	2
-0020-5	NBRA-653	18.5	SACE15RE22	22.0	420.0	2	4
-0030-5	NBRA-654 *	31.4	SACE15RE13	13.0	435.0	2	4
-0060-5	NBRA-655 *	62.6	SAFUR90F575	8.0	1800	4.5	9
-0100-5	NBRA-656 *	88.4	SAFUR80F500	6.0	2400	6	12
-0140-5	NBRA-657 *	147.3	SAFUR125F500	4.0	3600	9	18
-0210-5	NBRA-658	220.7	SAFUR200F500	2.7	5400	13.5	27
-0320-5	NBRA-659	335.0	2 x SAFUR210F575	1.7	8400	21.0	2 x 21
-0400-5	NBRA-659	402.8	2 x SAFUR200F500	1.35	10800	27.0	2 x 27
-0490-5	2 x NBRA-658	509.3	2 x (2 x SAFUR125F500)	2 x 2.0	2 x 7200	2 x 18.0	2 x (2 x 18)
-0610-5	2 x NBRA-659	636.5	2 x (2 x SAFUR210F575)	2 x 1.7	2 x 8400	2 x 21.0	2 x (2 x 21)
-0760-5	2 x NBRA-659	765.3	2 x (2 x SAFUR200F500)	2 x 1.35	2 x 10800	2 x 27.0	2 x (2 x 27)
-1380-5	3 x NBRA-659	1208	3 x (2 x SAFUR200F500)	3 x 1.35	3 x 10800	3 x 27.0	3 x (2 x 27)
-1760-5	4 x NBRA-659	1611	4 x (2 x SAFUR200F500)	4 x 1.35	4 x 10800	4 x 27.0	4 x (2 x 27)
-2160-5	5 x NBRA-659	2014	5 x (2 x SAFUR200F500)	5 x 1.35	5 x 10800	5 x 27.0	5 x (2 x 27)
-3450-5	6 x NBRA-659	2417	6 x (2 x SAFUR200F500)	6 x 1.35	6 x 10800	6 x 27.0	6 x (2 x 27)
690 V a.c. Units							
-0016-6	NBRA-663	13.8	SACE08RE44	44.0	210.0	1	2
-0020-6	NBRA-663	19.8	SACE15RE22	22.0	420.0	2	4
-0030-6	NBRA-664	35.0	SACE15RE13	13.0	435.0	2	4
-0040-6	NBRA-666	40.2	SACE15RE13	13.0	435.0	2	4
-0070-6	NBRA-666	80.1	SAFUR90F575	8.0	1800	4.5	9
-0100-6	NBRA-667	94.4	SAFUR80F500	6.0	2400	6	12
-0120-6	NBRA-667	132.5	SAFUR125F500	4.0	3600	9	18
-0140-6	NBRA-669	158.1	SAFUR210F575	3.4	4200	10.5	21
-0210-6	NBRA-669	228.5	SAFUR200F500	2.7	5400	13.5	27
-0260-6	NBRA-669	275.9	2 x SAFUR125F500	2.0	7200	18.0	2 x 18
-0320-6	NBRA-669	346.7	2 x SAFUR210F575	1.7	8400	21.0	2 x 21
-0400-6	NBRA-669	403.7	2 x SAFUR200F500	1.35	10800	27.0	2 x 27
-0490-6	2 x NBRA-669	524.2	2 x (2 x SAFUR125F500)	2 x 2.0	2 x 7200	2 x 18.0	2 x (2 x 18)
-0610-6	2 x NBRA-659	658.7	2 x (2 x SAFUR210F575)	2 x 1.7	2 x 8400	2 x 21.0	2 x (2 x 21)
-0760-6	2 x NBRA-659	767.0	2 x (2 x SAFUR200F500)	2 x 1.35	2 x 10800	2 x 27.0	2 x (2 x 27)
-1380-6	3 x NBRA-659	1211	3 x (2 x SAFUR200F500)	3 x 1.35	3 x 10800	3 x 27.0	3 x (2 x 27)
-1710-6	4 x NBRA-659	1615	4 x (2 x SAFUR200F500)	4 x 1.35	4 x 10800	4 x 27.0	4 x (2 x 27)
-2120-6	5 x NBRA-659	2019	5 x (2 x SAFUR200F500)	5 x 1.35	5 x 10800	5 x 27.0	5 x (2 x 27)
-3350-6	6 x NBRA-659	2422	6 x (2 x SAFUR200F500)	6 x 1.35	6 x 10800	6 x 27.0	6 x (2 x 27)

1. NBRA-653, 658, 659 , *NBRA-654, 655, 656, 657

2. R= , E=

3. (P_{Rcont} [kW]) 400 , P_{BRmax} [kW]

4. ACS 600 가

5. SACE IP21 , SAFUR IP00

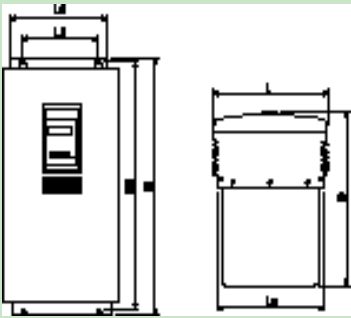
ACS 600

ACS 601 ()

	R2		R3		R4		R5		R6		R7	
ACS 601	0005 0006	0009-3 0011-5	0011 0016	0016-3 0020-5	0020 0025	0025-3 0030-5	0030 0040	0050-3 0060-5	0060 0070	0070-3 0100-5	0100 0120	0120-3 0140-5
L	220		260		306		306		306		480	
L1	140		180		200		200		200		320	
L2	179		219		261		257		257		-	
L3	205		245		289		289		289		-	
H	420		420		526		715		715		860	
H1	380		380		503.5		660		660		784	
D	292		298		309.5		360		432		428	
	M5		M6		M6		M6		M6		M9	
(kg)	14		17.5		25		25		50		88	

ACS 600

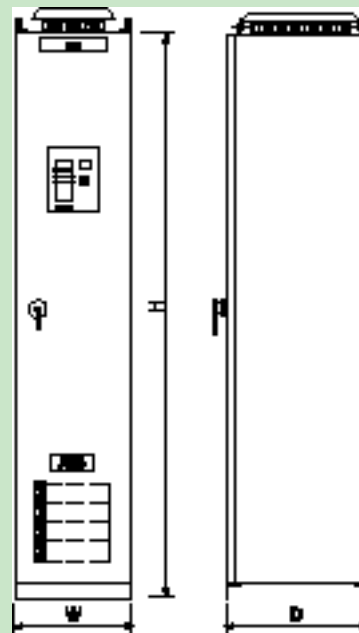
/	(H) mm	(W) mm	(D) mm	kg(Gross)
NBRA-653/663	198.5	157	149	2.9(3.5)
MBRA-654/664	135	121	150	1.5(3.1)
NBRA-655/656/665/666	176	140	156	2.3(2.9)
NBRA-657/667	212	165	203	2.7(3.3)
NBRA-658	584	334	240	24(34)
NBRA-659/669	584	334	240	24(34)
SACE08RE44	365	290	131	6.1(6.5)
SACE15RE22	365	290	131	6.1(6.5)
SACE15RE13	365	290	131	6.8(7.2)
SAFUR80F500	600	300	345	14(34)
SAFUR90F575	600	300	345	12(32)
SAFUR180F460	1320	300	345	32(52)
SAFUR125F500	1320	300	345	25(45)
SAFUR200F500	1320	300	345	30(50)
SAFUR210F575	1320	300	345	27(47)



ACS 606 ()

ACS 606 Type	H (mm)	W (mm)	D (mm)	(kg)	
ACS 606-0005 0016-3	2350	500	650	170	RP1
ACS 606-0005 0020-3	2000	500	650	150	
ACS 606-0020 0070-3	2350	500	650	200	RP2
ACS 606-0025 0100-5	2000	500	650	180	
ACS 606-0100 0120-3	2350	600	650	250	RP3
ACS 606-0120 0140-5	2000	600	650	230	
ACS 606-0140 0210-3	2350	700	650	310	RP4
ACS 606-0170 0260-5	2000	900	650	300	
ACS 606-0260 0320-3	2350	1100	650	430	
ACS 606-0320 0400-5	2000	1300	650	430	
ACS 606-0400 0610-5	2350	2200	650	900	
ACS 606-0610 0760-5					RP5

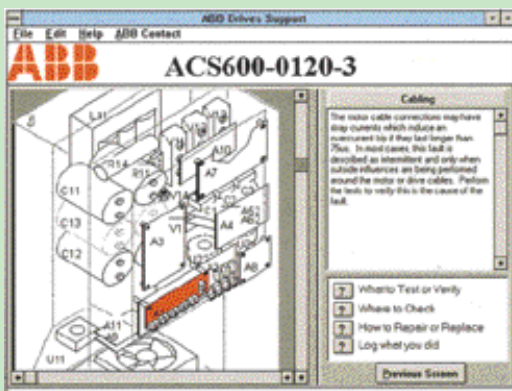
- : 5Y 7/1
- : (, , , : 2.3t, : 1.6t)
- : IP20
- : Run/Stop/Fault Lamp, CDP 312(-)
- : By-pass / 7†



ACS 600

..... ACS 600 / (NIOC)
가
..... "Factory"

가



Drives support

: 0 = Open, 1 = Closed

DI 5	DI 6	
0	0	AI 1
1	0	Constant speed 1
0	1	Constant speed 2
1	1	Constant speed 3

- X29

1	TRANS	
2	FAULT	-
3	B-	
4	A +	
5	GND	
6	+ 24V	

- X28

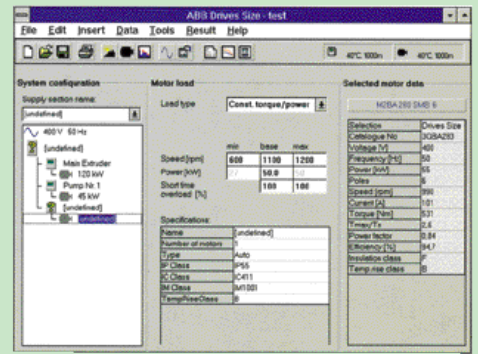
1	TRANS	
2	FAULT	-
3	B-	
4	A +	
5	GND	
6	+ 24V	

"Factory"

ACS 600

X21		
1	VREF	10VDC
2	GND	10mA 1kΩ R 10kΩ
3	AI1 +	1
4	AI1—	0...10VDC
5	AI2 +	
6	AI2—	0(4)...20mA
7	AI3 +	
8	AI3—	0(4)...20mA
9	AO1 +	
10	AO1—	0(4)...20mA
11	AO2 +	
12	AO2—	0(4)...20mA
X22		
1	DI1	START/STOP
2	DI2	/
3	DI3	
4	DI4	가 1 2
5	DI5	CONSTANT SPEED
6	DI6	CONSTANT SPEED
7	+ 24VDC	
8	+ 24VDC	, 100mA
9	DGND	
X23		
1	D + 24VDC	, 200mA
2	GND	
X25		
1	RO11	
2	RO12	1
3	RO13	READY ()
X26		
1	RO21	
2	RO22	2
3	RO23	RUN ()
X27		
1	RO31	
2	RO32	
3	RO33	FAULT ()

ACS 600



Drives Size

ACS 600

가

ACS 600

ACS 600

ACS 600 normal

()

2

50Hz 3000rpm

3

가

1.

600 1900RPM,

20Nm

1

70Nm

가

400V

$$P = (3600/3000)^3 \cdot 40kW = 69.1kW$$

ACS 600

3600rpm

$$83\% \cdot ()$$

ACS 600

150%

가

ACS

$$T = 9550 \cdot 69.1 / (3600 \cdot 0.83) = 220.9Nm$$

600 heavy-duty

$$P = 3000 \cdot 220.9 / 9550 = 69.4kW$$

75kW

4

50Hz

1500rpm

135A

가

ACS 600

400V 75kW

ACS 600-0100-3

가 ACS 600

- 20Nm

$$P = 1900 \times 20 / 9550 = 4.0kW$$

- ACS 600

89%, 1900rpm

80%

()

600rpm

- ACS 600

()

200%

	200% (4)	70/2.00 = 35Nm
600rpm(20Hz)	89% (1)	20/0.89 = 22.5Nm
1900rpm(63.3Hz)	80% (1)	20/0.80 = 25Nm

35Nm

$$P = 1500 \cdot 35 / 9550 = 5.5kW$$

5.5kW

12A

ACS 600

400V 5.5kW

ACS 600-0011-3

가 ACS 600

$$P = , n = , f = ACS 600$$

$$T = , T_N =$$

2.

3000rpm

40kW

가

Curve 1 : ACS 600 (IEC 34)

Curve 2 & 3 : ACS 600 normal

Curve 3 & 4 : ACS 600 heavy-duty

1200rpm 3600rpm

400V

(U1)	3 208 240V ± 10%(220Vac unit)		
	3 380/400/415V ± 10%(400Vac unit)		
	3 380/400/415/440/460/480/500V ± 10%(500Vac unit)		
	3 525/575/600/660/690V ± 10%(600Vac unit)		
	48 63Hz, 17(%/s)		
	± 3%		
	50KA, Is		
	0.97()		
	>98%()		
(U2)	3 , 0 U1		
	0 300Hz, 0~120Hz (du/dt filter)		
	0.01Hz		
Speed Control	Static accuracy	Dynamic accuracy	
Open loop	Motor 10%	100% 0.3 0.4%sec	
Closed loop	0.01%	100% 0.1 0.2%sec	
		1.0x In	1.0x Ihd(ACS 600)
		1.1x In	1.5x Ihd(10 1)
		1.5x In	2.0x Ihd(15 2)
		8 300Hz	
(fs)		3kHz()	
		300m (300m du/dt)	
/			
(AI1, AI2, AI3)			
- (AI1)		0(2)~10V, (Rin)>20kΩ	
- (AI2, AI3)		0(4)~20mA, (Rin)=100	
- 가		1kΩ 10kΩ, : 10Vdc	
		24Vdc± 10%, : 250mA,	
(DI1...DI6)		: 24Vdc, - 15% +20%	
		; <1.5kΩ >4.5kΩ, Open circuit	
(AO1, AO2)		0(4) 20mA, , : 0.1%(10bit) ,700	
(RO1, RO2, RO3)			
-		: 8A/24Vdc 0.4A/120Vdc, : 8A/250Vac	
-		2A rms	
-		4kVac 1	
DDCS Fibre Optic Link		A high speed, DDcs protocol fibre optic serial data bus (Plastic core)	
-	: 3.50 x (Ihd)	-	(/)
-	: 1.30 x	-	()
-	: 0.65 x	-	
가		: ACS 600 120	
-		-	
-		-	
-		-	
-		-	
		5	
		ACS 601.....IP21()/IP54(), ACS 606.....IP20	
		ACS 601().....NCS 1704 - Y15R()	
		ACS 606().....Munsell 5Y 7/1()	

(ACS 601)	IP210 40 (40 1 3.5%)
	IP540 25 (25 1 3.5%)
(ACS 606)	0 40 (40 1 3.5%)
	5 95%(,)
	: IEC 721 - 3 - 3, Class 3C2
	: IEC 721 - 3 - 3, Class 3S2
	0.3mm(2 Hz), 1m/s(9 200Hz), sinusoidal(IEC68 - 2 - 6)
	1000m (1000m 100m 1%)
	- 40 +70
	IEC 664(), EN 50082 - 2(EMC), IEC 439 - 1
	, , (rpm), , , ,
	(%), , 가 , (kWh), , ,
	/
	15
가 / (fmin fmax)	0 1800 (, 2 가)
(Start type)	(), DC MAGN(), CNST DC MAGN
(Stop type)	, COAST
/	가
	0~100% 가
(DC hold)	가 ()
	4 x20 -
	DTC,
PID	가
	가
	,
(EM Stop)	(0~2000)
	5
	ACS 600
가 (,)	, Sequence

..... 가

/ /

.....

Sequential

PID

USER macro 1&2 가 (2 가)

PFC(Pump & Fan Control)...

Master/Follower

Winder control

Spining control

)“ ”

()



ACS-601-0050-3-000C1200901

AC _____

CS = _____

CC = Crane

CP = _____

CA = _____

ACS 600 _____

0 = 6

1 = (11 1120kW ; IGBT) 2 = 12

7 = (630 2800kW; Thyristor)

1 = _____

4 = _____

6 = _____ (10,11 Page)

7 = _____

A7 = ABB MNS Rubicle (10,11 Page)

(KVA) _____

ACS 600 _____

.(10)

2 = 208/220/220/230/240Va.c

3 = 380/400/415Va.c

5 = 380/400/415/440/460/480/500Va.c

6 = 525/550/575/600/660/690Va.c

0 = _____ 1. (ACS 601) _____
 , X = _____ (19)

0 = _____ 2. (ACS 606 607 Panel) _____
 , X = _____ (19)

0 = _____ 3. (ACS 606 607 Panel) _____
 , X = _____ (19)

C = _____ , F = PFC _____ , J = Master/Follow + _____ , N = System _____ ,
 V = Spining _____ , Z = Special Software (Winder, Traverse, ACP, ACC)

0 = _____ , 1 = _____

0 = IP 00, 1 = IP 20(ACS 606, 607...) , 2 = IP 22(ACS 601)
 3 = IP 54(ACS 601 , ACS 601-0070-3/-0100-5 가)

0 = _____

0 = _____

EMC Filters

0 = EMC Filter (ACS 601)

1 = EMC Filter (ACS 606, 607)

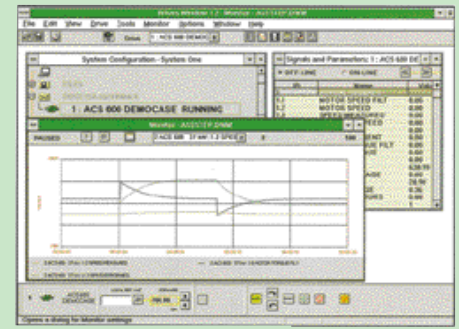
9 = _____

0 = _____ , 1 = _____

/ _____

1 = _____

ACS 600



Drives Window

			0(4) 20mA 0(2) 10Vdc	2Ch.		
	I/O	NAIO-02 or NAIO-03	0(4) 20mA 0(2) 10Vdc	2Ch.	12bit/0.024%	
	I/O	NDIO-01		2Ch. 2Ch.	110 250VAC	24 48VDC
I/O	PG	NTAC-02	(PG)			
			• PG : 12Vdc 24Vdc()			
			• PG : A+, A-, B+, B-, Z+, Z-			
			• : 100kHz			
			• : 2 / (PG : 2048 /)			
		NPBA-02 NMBA-01 NMFA-01 NCSA-01	Profibus Modbus Master Fieldbus CS31			
		NPSM-01	24Vdc/2A	2	Option	
PC Tools	Drives Window		On line			

- I/O 2 24Vdc/2A 가
- Software NAO 1 , NDIO 3 , NTAC 1
- I/O 가 45mm, 75mm, 105mm DIN-Rail 35mm 가 . ACS 600 R4 R7

- Drives Window
IBM Pentium , MS Windows 95/98 NT4.0 , CD-Rom driver,
VGA , memory 64MB

- ACS 601()
, ACS 601-0005-3 , 0006-5 0020-5 가



2. / (ACS 606, 607)

A	NBCI-01	Panel Bus Connection Interface
B	NAIO-03	Analog I/O Extension
C	NDIO-02	Digital I/O Extension
D	NTAC-02	Pulse Encoder Interface, NDCO-03 included
E	NDNA-02	DeviceNet Adapter, NDCO-03 included
F	NLDN-01	LonWorks Adapter, NDCO-03 included
G	NIBA-01	Interbus-S Adapter, NDCO-03 included
H	NPBA-02	Profibus Adapter, NDCO-03 included
L	NCAN-02	CANOpen Adapter, NDCO-03 included
M	NMBA-01	Modbus Adapter, NDCO-03 included
N	NCSA-01	CS 31 Adapter, NDCO-03 included
Q	NBAA-01	Building Automation Adapter
S	NDCO-03	DDCS Communication Option 3 Board

- (ACS 606, 607)

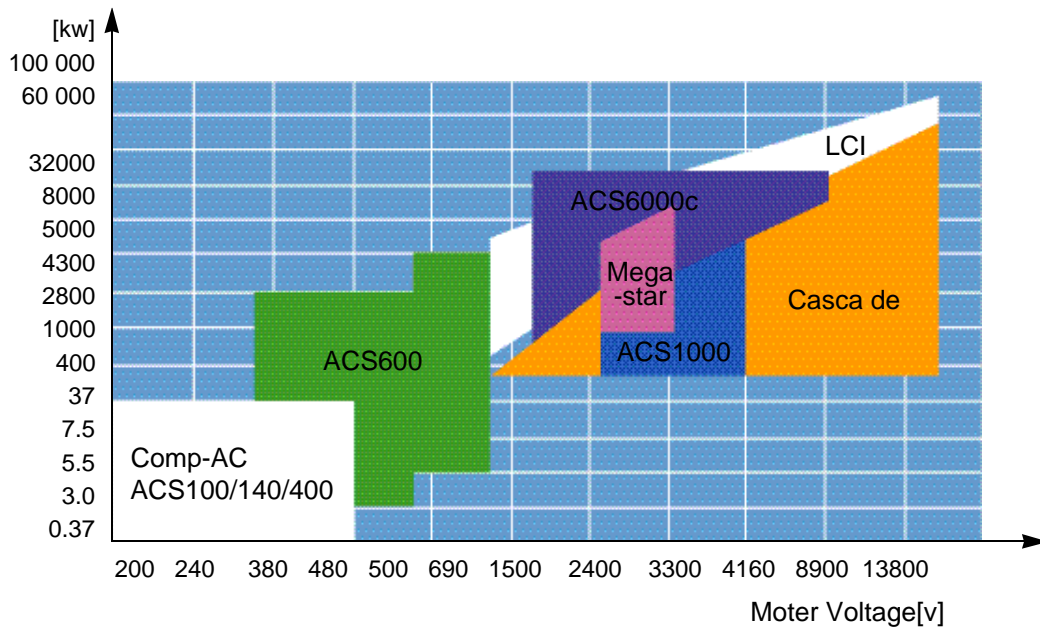
A	NBCI-02	Panel Bus Connection Interface
E	NDNA-02	DeviceNet Adapter
F	NLDN-01	LonWorks Adapter
G	NIBA-01	Interbus-S Adapter
H	NPBA-02	Profibus Adapter
J	NMBP-01	Modbus Plus Adapter
K	NAFA-01	AF 100 Adapter
L	NCAN-02	Modbus Adapter
M	NMBA-01	CS 31 Adapter
N	NCSA-01	Building Automation Adapter
Q	NBAA-01	DDCS Communication Option 3 Board

	NDIO-02	NAIO-03	NTAC-02
A	1	0	0
B	2	0	0
C	3	0	0
D	0	1	0
E	1	1	0
F	2	1	0
G	3	1	0
H	0	0	1
J	1	0	1
K	2	0	1
L	3	0	1
M	0	1	1
N	1	1	1
P	2	1	1
Q	3	1	1

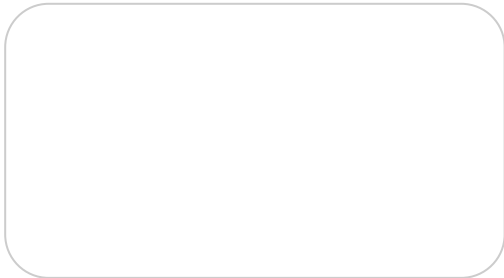


ABB

- ABB INVERTER Portfolio



본 카탈로그의 내용은 예고없이 변경될 수 있습니다.



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KR 12 : 2001 Rev.3

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